



- Wide Range AC Input (90 - 305 VAC)
- Compact Size & High Efficiency
- Constant Current (ALC) and Constant Voltage (ALV)
- IP66 Splash Proof Plastic Case
- Guaranteed - 40°C Start-Up
- IEC 61000-3-2 Class C Harmonics
- EN 61347-1 /-2-13 , UL 8750 & PSE Compliant
- Excellent MTBF & E-Cap Life Time Values
- 3 Year Warranty

AL60, 80 & 100 Series

60 to 100W IP66
Power Supplies

Key Market Segments & Applications



LED

Light Sources, Illumination Boards
Signboards / Displays, Architectural Lighting
Traffic Lights, Indoor & Outdoor Use

AL60, 80 & 100 Features and Benefits

Features

- IP66 Rated
- Vacuum Encapsulated
- Wide Range AC Input

Benefits

- Can be used Outdoors
- Robust
- Supports Global Use

Specifications

ITEMS	MODEL	ALC Constant Current		ALV Constant Voltage	
		VAC/Hz			
AC Input	VAC/Hz	90 - 305VAC, 47 - 63Hz			
Inrush Current (100/200VAC)	A	25 / 50A, 25°C ambient, cold start			
Input Current (100/200VAC)	A	Model dependant			
Harmonics / Power Factor (1)	-	IEC61000-3-2 Class C above 50% load / 0.99/0.95 at 100/230VAC ⁽¹⁾			
Output Accuracy	%	±5%		±3%	
Total Regulation	%	±5%		±3%	
Overcurrent Protection	-	Automatic Recovery		> 105% of rated power	
Overvoltage Protection	%	> 110% (Cycle AC to reset)			
Turn on time	ms	< 1000ms			
Leakage Current (277VAC 60Hz)	µA	< 250µA			
Operating Temperature	°C	-30°C to +70°C, (Guaranteed start up at -40°C). AL60; derate linearly to 70% load from 50°C to 70°C, AL80; derate linearly to 60% load from 50°C to 70°C, AL100; derate linearly to 50% load from 50°C to 70°C			
Storage Temperature	°C	-30°C to +85°C			
Operating Humidity	-	15 - 90% RH (non condensing)			
Storage Humidity	-	15 - 90% RH (non condensing)			
Cooling	-	Convection			
Withstand Voltage	-	Input to Output 3kVAC (Class II, no ground connection needed)			
Isolation Resistance	Ω	>100MΩ at 25°C & 70%RH, Input to Output at 500VDC			
Vibration (non operating)	-	10 - 55Hz: 19.6m/s ² constant sweep 1 min X, Y, Z for 30 mins			
Shock	-	< 196.1 m/s ² (20G)			
Immunity	-	IEC61000-4-2 (lv 3), -3 (lv3), -4 (lv3), -5 (lv 4), -6 (lv 3), -8 (lv 4), -11			
Safety Agency Approvals	-	ENEC, UL8750, EN61347-1, EN61347-2-13, CSA C22.2 No. 60950-1, CE Mark, PSE			
Conducted & Radiated EMI	-	EN55015-B, EN55022-B, CISPR 22-B, FCC-B			
IP Class	-	IP66			
Weight (Typ)	g	AL60: 380g, AL80, AL100: 500g			
Size (LxWxH)	mm	241mm x 43mm x 35mm			
Warranty	yrs	3			

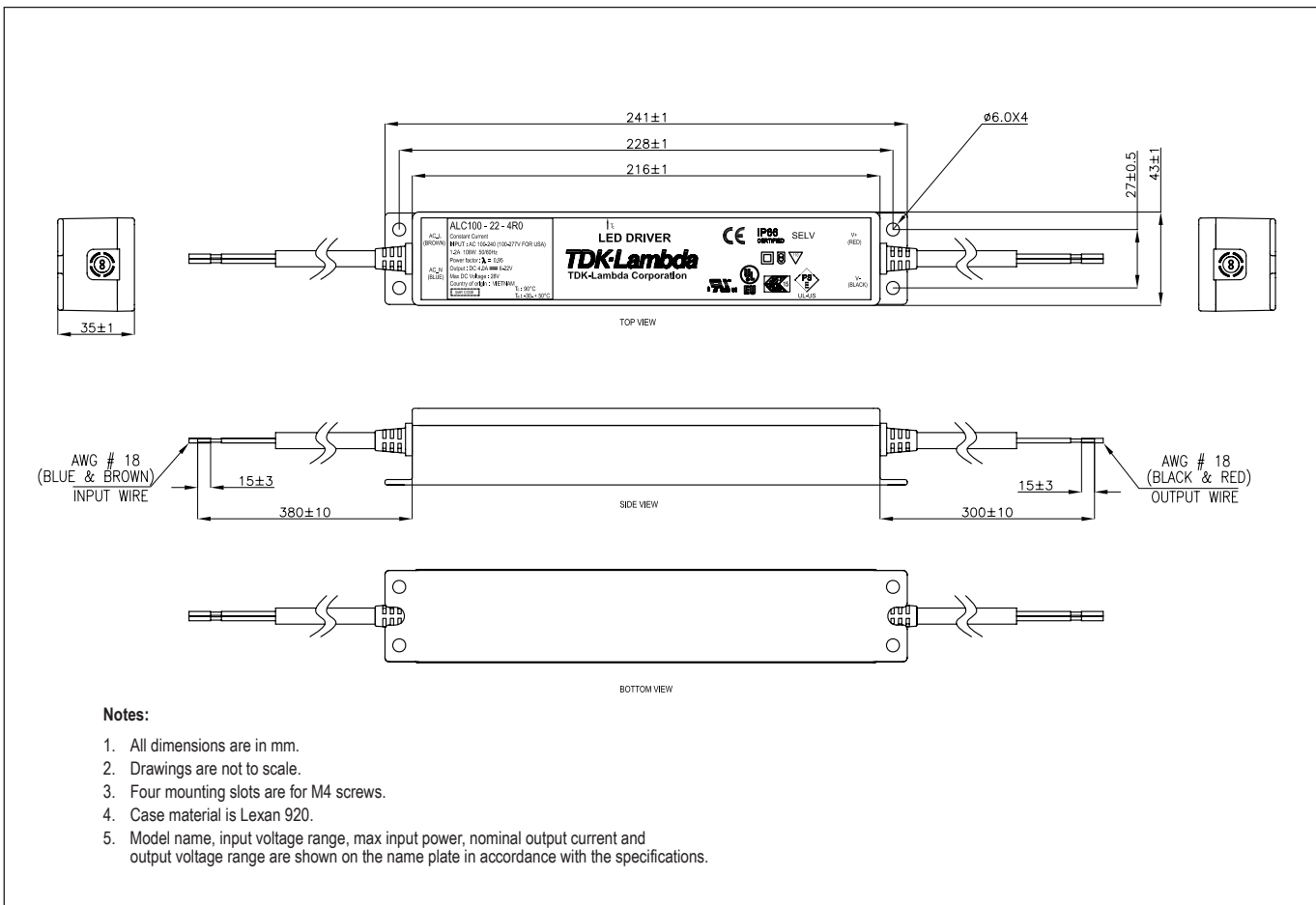
Note (1) 0.98/0.93 for ALx60 models

Model Selector

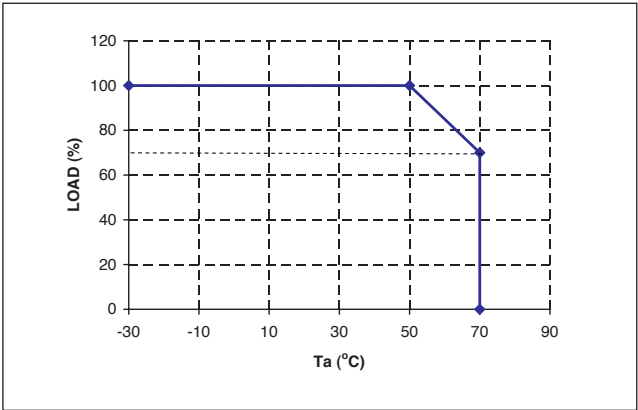
Model	Constant Current Constant Voltage	Output Voltage (V)	Output Current (A)	Efficiency	Maximum Average Power	Ripple & Noise	MTBF hrs ⁽²⁾ JEITA RCR-9102B
ALC60-48-1R05	CC	6 - 48V	1.05A	85%	50.4W	-	> 226,000
ALC60-42-1R4	CC	6 - 42V	1.4A	86%	58.8W	-	> 226,000
ALC80-48-1R7	CC	6 - 48V	1.7A	87%	81.6W	-	> 223,000
ALC80-24-3R0	CC	6 - 24V	3.0A	86%	72.0W	-	> 223,000
ALC80-24-3R3	CC	6 - 24V	3.3A	86%	79.2W	-	> 223,000
ALC100-22-4R0	CC	6 - 22V	4A	86%	88.0W	-	> 223,00
ALV60-12-5R0	CV	12V	5A	85%	60.0W	180mV	> 278,000
ALV60-24-2R5	CV	24V	2.5A	88%	60.0W	240mV	> 278,000
ALV60-36-1R7	CV	36V	1.7A	87%	61.0W	360mV	> 278,000
ALV80-12-6R5	CV	12V	6.5A	86%	78.0W	180mV	> 259,000
ALV100-24-3R8	CV	24V	3.8A	89%	91.2W	240mV	> 269,000
ALV100-36-2R5	CV	36V	2.5A	88%	90.0W	360mV	> 269,000

Note (2) @ 50°C ambient, for details please contact sales

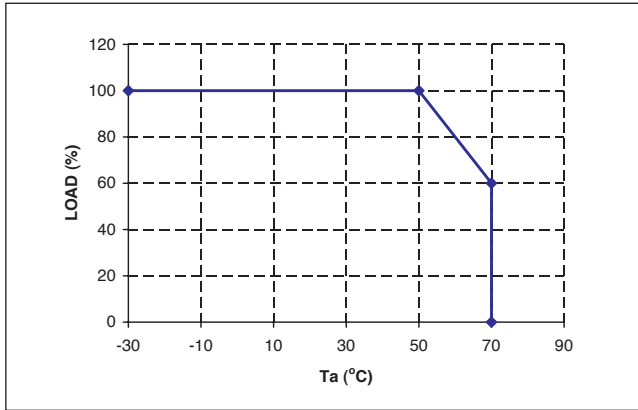
Outline Drawing AL60, 80 & 100 Series



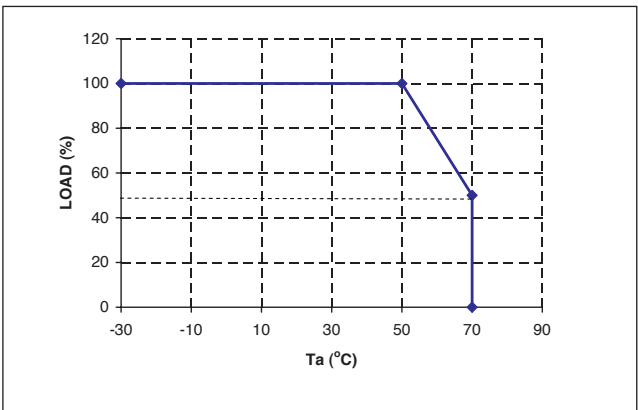
Derating Curve AL60 Series



Derating Curve AL80 Series

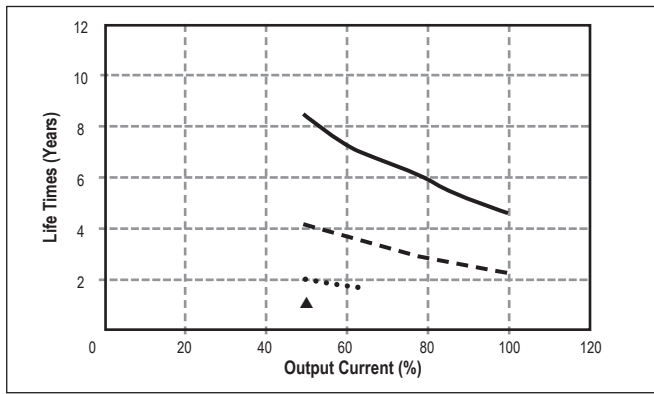


Derating Curve AL100 Series

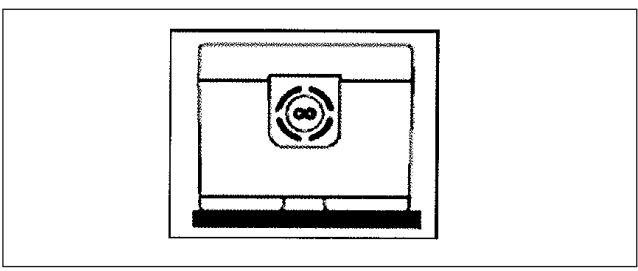


Example Electrolytic Capacitor Lifetime ALC100-22-4R0 Ta = 40°C — = 50°C ---- = 60°C = 70°C ▲

Vin = 230VAC				
Load (%)	Life Time (Years)			
	Ta= 40°C	Ta= 50°C	Ta= 60°C	Ta= 70°C
50	8.3	4.2	2.1	1.0
60	7.4	3.7	1.8	-
70	6.7	3.3	1.7	-
80	6.0	3.0	-	-
90	5.4	2.7	-	-
100	4.6	2.3	-	-



Typical Mounting Method ALC100-22-4R0



For Electrolytic Cap life of other models please contact Technical Sales

TDK-LAMBDA EMEA

www.emea.tdk-lambda.com



TDK-Lambda France SAS

Route de Grivery
ZAC des Delaches
CS 41077
91978 Courtaboeuf Cedex
France
Tel: +33 1 60 12 71 65
Fax: +33 1 60 12 71 66
france@fr.tdk-lambda.com
www.fr.tdk-lambda.com



Italy Sales Office
Via dei Lavoratori 128/130
20092 Cinisello Balsamo (MI)
Italy
Tel: +39 02 61 29 38 63
Fax: +39 02 61 29 09 00
info.italia@it.tdk-lambda.com
www.it.tdk-lambda.com



TDK-Lambda Germany GmbH

Karl-Bold-Strasse 40
77855 Achern
Germany
Tel: +49 7841 666 0
Fax: +49 7841 5000
info.germany@de.tdk-lambda.com
www.de.tdk-lambda.com



Austria Sales Office
Aredstrasse 22
2544 Leobersdorf
Austria
Tel: +43 2256 655 84
Fax: +43 2256 645 12
info.germany@de.tdk-lambda.com
www.de.tdk-lambda.com



TDK-Lambda UK Ltd.

Kingsley Avenue
Ilfracombe
Devon EX34 8ES
United Kingdom
Tel: +44 (0) 12 71 85 66 66
Fax: +44 (0) 12 71 86 48 94
powersolutions@uk.tdk-lambda.com
www.uk.tdk-lambda.com



TDK-Lambda Israel

Kibbutz
Givat Hashlosha 48800
Israel
Tel: +9 723 902 4333
Fax: +9 723 902 4777
info@nemic.co.il
www.tdk-lambda.co.il



Russia

Technical Support:
St Petersburg
Tel: +7 (812) 6580463
Sales:
Moscow
Tel: +7 (499) 7557732
info@tdk-lambda.ru
www.tdk-lambda.ru

LOCAL DISTRIBUTION

